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# **DEUCE II/FESTIVAL**

## **OWNER'S MANUAL**

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Your new Deuce II amplifier is designed and engineered to give you output and performance comparable to that of much larger and more expensive units. Many months of intensive research and development have gone into making this one of the best performing and most reliable amplifiers ever offered at any price. The Deuce II is powered by four 6L6GC power tubes - 110 watts RMS @ 5% THD. All power circuits are push-pull for more consistent and dependable performance.

The Classic features 2 channels (bright and normal) with 4 inputs and a complete brace of controls including bass and treble controls middle control, master volume control, reverb and tremolo controls.

The Deuce II is truly a professional's amplifier at a beginner's price.

NOTE: The Festival Amplifier is a "head only" Version of the Deuce II.

**1,2** Two sets of inputs are provided for tonal preference. They are labeled "Bright" #1 & #2, and "Normal" #1 & #2. The bright inputs provide more treble response for a 'Brighter' sound from your instrument. The normal channel provides a more normal response with no automatic treble or bass boost.

In most cases, when plugging in your instrument, you should use either Bright or Normal input jack #1. Input #2 is the low gain input and should be used if the signal from your instrument tends to overload (distort) input #1. When two instruments are plugged into jacks 1 and 2, the circuit automatically balances the gain of the two inputs so that the sensitivity of both are identical.

**3,4** Both the bright and normal channels have separate volume controls. These volume controls set the gain of the input preamp, thereby controlling the sensitivity of the preamp, not the POWER of the amp. It is entirely possible for the amp to be driven to full power output on very low volume settings if the signal from your instrument is extremely high. Please remember that the volume control does not indicate power output, but the Gain of the preamp.

**5** The bass control varies the amount of bass response in the system and is very effective in achieving a balanced tonal blend.

**6** The middle control enables the musician to tailor the vital mid-range response. Experimentation with the unique middle circuit will show that it is much more effective than conventional circuits.

**7** The treble control varies the high end response of the amplifier.

**8** The reverb control determines the amount of delayed signal (reverb) blended into the output. This circuit is able to produce tremendous sustain and clarity by properly damping the driver coils of the reverb unit. The reverb is effective in BOTH channels.

**9** The depth control is used to vary the amount of amplitude modulation (tremolo) of the output signal. The operation of this control is conventional and should present no problem in adjusting for the desired effect.

**10** The rate control determines the speed with which the signal is modulated. This control varies the speed of the tremolo master oscillator and should provide any speed desired for modern music. The reverb and tremolo features are controllable from a remote footswitch.

**11** The master volume control is very useful for obtaining a number of effects. The most common use of this control is for obtaining overdrive and sustain at low

sound levels. Another valuable use for this control is for controlling the response and noise of the amp in a recording studio.

The master volume control is the final gain determining element before the signal is fed into the output amplifier and could more accurately be called a "sensitivity" control. To obtain maximum overdrive and sustain, the individual channel volume controls should be set near maximum, and the output of the system should be adjusted with the master volume control. You will discover that many different and pleasing harmonic effects can be obtained by trying different settings of the tone, volume, and master volume controls. It has been found that when operating the amp in the overdriven condition, lower settings of the treble control tend to give a smoother "natural distortion characteristic". The normal background noise (hiss, hum, etc.) can be very effectively controlled for recording studio applications by use of the master volume control. To reduce these noises, reduce the setting of the master volume control.

**12** The pilot light indicates when the electrical supply (mains) is supplying power to the amplifier.

**13** The fuse is located within the cap of the fuse holder and should be replaced with one of the proper value if it should fail. It is necessary that the proper value fuse be used to avoid damage to the equipment and to avoid voiding the warranty. If your amplifier repeatedly blows fuses, the unit should be taken to a qualified service center for repair.

**14** The line power switch is of the three position type with the center position being off. The three position switch has two ON positions, one of which is used to ground the amplifier properly. One of the ON positions will yield the least hum or popping when the instrument is touched and this is the position that should be used.

For your safety, we have incorporated a 3 wire line (mains) cable with a grounding lug. It is not advisable to remove the ground pin under any circumstances. If it is necessary to use the amp with the old two prong sockets, a suitable adaptor should be used. Much less noise and greatly reduced shock hazard exists when the amp is operated with the proper grounded receptacle.

**15** The main speaker output jack #1 is a switching type and must be plugged into before the external speaker jack #2 becomes functional. The output impedance of these amplifiers is 4 ohms TOTAL. Other load impedances can be used with a sacrifice in performance. It is not recommended that less than a 2 ohm load be used on these amps to avoid undue loading of the output tubes.

**16** The external speaker jack #2 is designed to allow use of additional speaker systems with the amp. This jack does not become operational until the main jack #1 has been connected to a speaker. It is advisable to note that we have provided additional power in this amp to drive more than one speaker system. This additional power could be more than one speaker system can handle.

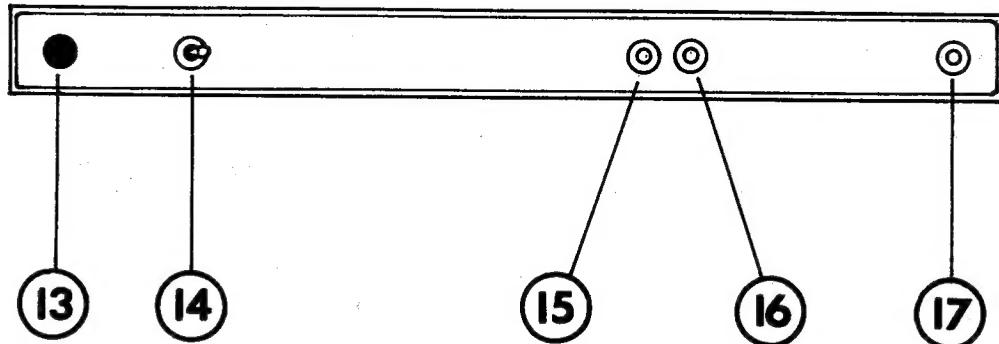
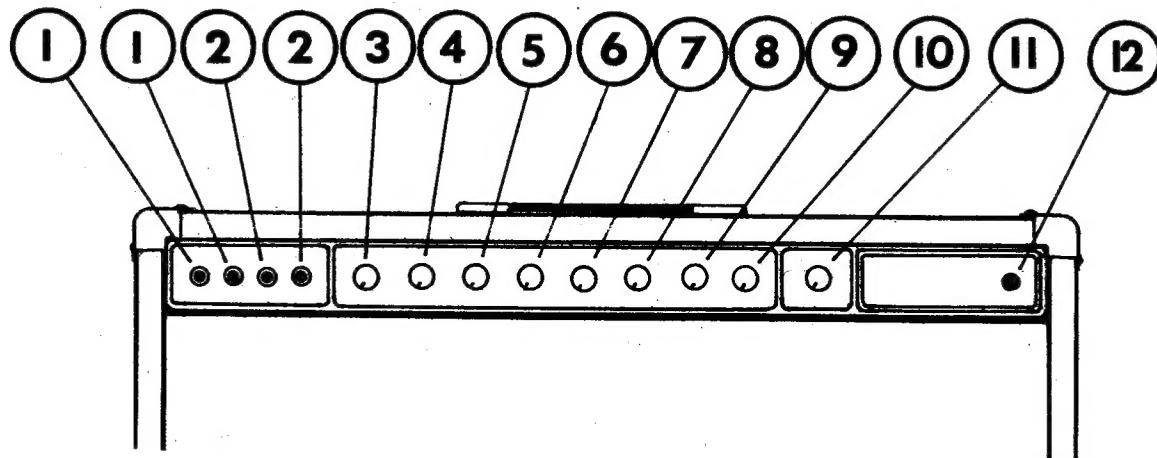
These and all other high power tube type amplifiers must be used in the proper manner to avoid damage to tubes and other internal components. Below are several instructions that **MUST** be followed when operating high powered tube type equipment.

A. NEVER OPERATE THE AMPLIFIER WITHOUT A SPEAKER LOAD!! This amp is equipped with a shorting system on the main output jack to help protect against accidentally turning on the amp without a load. If the speaker patch cord is plugged into the amp, but not connected to the speakers, the amp is NOT loaded and could cause problems if the amp is turned on and operated in this manner. The natural inductance of the output transformer can store energy that normally is transferred to the speaker and is capable of developing tremendous voltages. These voltages can cause serious internal arcing

between the elements of the output tubes and their related circuitry. This is the **MOST** important consideration in the safe operation of your tube amp.

B. The 6L6GC output tubes are the most rugged audio power tubes on the market and should provide long service in the output circuit. Each tube has a keying pin moulded into the base to index the pins into their proper positions. When installing or removing the tubes, it is possible to break off these index pins by bending the tube too much in its socket. Use extreme caution when handling the tubes. **UNDER NO CIRCUMSTANCES SHOULD TUBES WITH BROKEN OR MISSING INDEX PINS BE INSERTED IN THE SOCKETS.** If a tube is inserted in the improper manner (wrong indexing), the output stage will instantly be damaged when the unit is turned on. Use of tubes with broken or missing index pins voids the warranty.

**17** The footswitch jack is of the "stereo" type and is used to plug in the footswitch for remote control of the reverb and tremolo effects. Any footswitch with the standard stereo phone plug and a shielded cable can be used.



**PEAVEY ELECTRONICS TECHNICAL SPECIFICATIONS**  
**MODEL: DEUCE II / FESTIVAL**

**I. POWER AMPLIFIER SECTION:**

**A. Output Power @ 1 KHZ @ 117 VAC Line:**

1. **Rated Power: 110 W RMS @ Rated Load: 4 OHMS**
2. **Power vs. Distortion:**

LOAD IMPEDANCE	8	4	2	1	OHMS
OUTPUT @ 5% THD	90	110	75	not recommended	W

**B. Peak Output @ Rated Load: 7.9 AMPS & 30 VOLTS, 220 WATTS**

**C. Music Power Output @ Rated Load: 140 WATTS RMS @ 5% THD**

**II. PRE-AMPLIFIER SECTION:**

**A. Input Characteristics: (Tone Controls Full CW, Volume @ 12:00, Master Full CW)**

1. **Sensitivity: 30 mV @ 1 KHZ**
2. **Input Impedance: 330 K OHMS**
3. **Noise: 60 DB (Open Ckt), 65 DB (50 K OHMS), 70 DB (Short Ckt)\***

**B. Distortion @ 1 KHZ @ Rated Output: Less Than 0.5% THD #**

**C. Frequency Response: 3 DB Down @ 40 HZ & 25 KHZ**

**D. Tone Controls:  $\pm 12$  DB @ 50 HZ & 5 KHZ**

**E. Middle Control: 10 DB Cut**

**F. Reverb Control: Continuously Variable with Foot-switch Cut-off**

**G. Tremolo Controls: Variable depth & Rate with Foot-switch Cut-off**

**H. Master Volume: Used in Conjunction with Input Volume to Produce Over-drive**

# Measured with Reverb and Tremolo full CCW

\* Signal-to-noise ratio in DB below rated output

Specifications and schematics published in this manual are subject to change without notice

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